CLAIMS

1. A method for the preparation of a platinum(II) complex containing a neutral bidentate ligand, the method including the step of reacting a *bis*-dicarboxylatoplatinate(II) species with a neutral bidentate ligand to form a neutral dicarboxylatoplatinum(II) complex product containing a neutral bidentate ligand; and, if necessary, recrystallising the product to form a pure dicarboxylatoplatinum(II) complex containing a neutral bidentate ligand.

2. The method according to claim 1, wherein the *bis*-oxalatoplatinate(II) species and ligand are reacted at a temperature of 40°C to 100°C for a period of 0.5 to 3 hours.

3. The method according to claim 2, wherein the *bis*-oxalatoplatinate(II) species and ligand are reacted at a temperature of approximately 95°C.

4. The method according to claim 2 or claim 3, wherein the *bis*-oxalatoplatinate(II) species and ligand are reacted for approximately 1 hour.

5. The method according to any one of the preceding claims wherein dicarboxylatoplatinate(II) species contaminating the product are removed from the product by dissolving the product in distilled water and adding an oxalate which transforms the dicarboxylatoplatinate(II) species into a species that can be separated from the dissolved product by filtration.

6. The method according to claim 5, wherein the oxalate is $Cs_2C_2O_4$.

7. The method according to any one of the preceding claims, wherein the neutral bidentate ligand is an amine.

8. The method according to claim 7, wherein the amine is a diamine.

9. The method according to claim 8, for the preparation of chemically and optically pure oxaliplatin, wherein the ligand is optically pure trans-ℓ-1,2-diaminocyclohexane.

10. The method according to any one of claims 1 to 7, wherein the neutral bidentate ligand contains donor atoms other than N, or N together with a donor atom other than N.

11. The method according to claim 10, wherein the donor atom/s other than N are selected from S and Se.

12. The method according to claim 11, wherein the neutral bidentate ligand is a neutral bidentate heterocyclic amine with an S donor atom.

13. The method according to claim 12, wherein the neutral bidentate heterocyclic amine includes thioetherial S.

14. The method according to claim 13, wherein the neutral bidentate ligand is a 1-alkyl/aryl-2-alkylthioalkyl/aryl heterocyclic amine.

15. The method according to claim 14, wherein the heterocyclic amine is an imidazole or pyridine.

16. The method according to claim 15, wherein the neutral bidentate ligand is:

Ligand (i)	1-methyl-2-methylthioethylimidazole,
Ligand (ii)	1-methyl-2-methylthiopropylimidazole,
Ligand (iii)	1-butyl-2-methylthiomethylimidazole,
Ligand (iv)	1-methyl-2-methylthiomethylimidazole,

Ligand (v)	1-butyl-2-methylthioethylimidazole,
Ligand (vi)	2-methylthiomethylpyridine,
Ligand (vii)	2-methylthioethylpyridine, or
Ligand (viii)	2-methylthiopropylpyridine.

17. The method according to claim 10, wherein the neutral bidentate ligand is an aminoalkylthioalkyl/aryl compound.

18. The method according to claim 17, wherein the neutral bidentate ligand is:

Ligand (ix)	1-amino-2-thiomethylethane, or
Ligand (x)	1-amino-2-thioethylethane.

19. The method according to claim 10, wherein the neutral bidentate ligand is a dithioether.

20. The method according to claim 19, wherein the neutral bidentate ligand is Ligand (xi) 2,5-dithiahexane.

21. The method according to claim 10, wherein the neutral bidentate ligand is a diseleno ether.

22. The method according to claim 21, wherein the neutral bidentate ligand is Ligand (xii) 2,5-diseleno hexane.

23. An oxalatoplatinum(II) complex containing an S or Se donor atom or atoms.

24. Oxalato(1-methyl-2-methylthioethylimidazole)platinum(II).

25. Oxalato(1-methyl-2-methylthiopropylimidazole)platinum(II).

26. Oxalato(1-butyl-2-methylthiomethylimidazole)platinum(II).

27. Oxalato(1-methyl-2-methylthiomethylimidazole)platinum(II).

28. Oxalato(1-butyl-2-methylthioethyimidazole)platinum(II).

29. Oxalato(2-methylthiomethylpyridine)platinum(II).

30. Oxalato(1-amino-2-thioethylethane)platinum (II).

31. Oxalato(1-amino-2-thiopropylethane)platinum (II).

32. Oxalato(1-amino-2-thiomethylethane)platinum(II).

33. Oxalato(1-amino-2-thioethylethane)platinum(II).

34. Oxalato(2,5-dithiahexane)platinum(II).

35. Oxalato(2,5-diseleno hexane)platinum(II).

36. A method of treating cancer in a patient, the method including administering an oxalatoplatinum(II) complex as defined in any one of claims 23 to 35 to the patient.

37. An oxalatoplatinum(II) complex as defined in any one of claims 23 to 35, for use in a method of treating cancer in a patient.

38. The use of an oxalatoplatinum(II) complex as defined in any one of claims 23 to 35 in a method of manufacturing a medicament for use in a method of treating cancer in a patient.

39. An oxalatoplatinum(II) complex containing no traces of silver.

40. A method for producing a *bis*-dicarboxylatoplatinate(II) species, the method including the step of either reacting a platinum(II) compound

or reacting a platinum(IV) compound with a dicarboxylate at a high mole ratio of greater than 1:4.

41. The method according to claim 40, wherein the platinum(II) or platinum(IV) compound and oxalate salt are reacted at a high mole ratio of 1:8 or greater.

42. The method according to claim 41, wherein the platinum(II) or platinum(IV) compound and oxalate salt are reacted at a high mole ratio of 1:16 or greater.

43. The method according to claim 42, wherein the platinum(II) or platinum(IV) compound and oxalate salt are reacted at a high mole ratio of 1:24 or greater.

44. The method according to any one of claims 40 to 43, wherein the platinum(II) compound is K_2PtX_4 where X is a halide.

45. The method according to any one of claims 40 to 43, wherein the platinum(IV) compound is K_2PtX_6 where X is a halide.

46. The method according to claim 44 or 45, wherein X is Cl.

47. The method according to any one of claims 40 to 46, wherein the dicarboxylate is an oxalate.

48. The method according to claims 40 to 47, wherein the *bis*-dicarboxylatoplatinate(II) species is a *bis*-oxalatoplatinate(II) salt.

49. The method according to claim 47 when dependent on claim 45, wherein the platinum(IV) compound is reduced to platinum(II) by the oxalate.

50. The method according to claim 45, wherein the platinum(IV) compound is reduced by SO_2 or sulfite.

51. The method according to claim 47, wherein the oxalate is $K_2C_2O_4$.

52. The method according to claim 48, wherein the platinum(II) *bis*-dicarboxylato species is $K_2Pt(C_2O_4)_2.2H_2O$.

53. The method according to any one of claims 40 to 52, wherein the platinum(II) compound or platinum(IV) compound and oxalate are reacted at a temperature of from 40°C to less than 100°C for a period of 0.5 to 4 hours.

54. The method according to claim 53, wherein the platinum(II) compound or platinum(IV) compound and oxalate are reacted at a temperature of approximately 95°C.

55. The method according to claim 53 or claim 54, wherein the platinum(II) compound or platinum(IV) compound are reacted for approximately 1 hour.